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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,912	11/14/2003	Mitsutoshi Higashi	300.1138	7653

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EXAMINER

SCHILLINGER, LAURA M

ART UNIT	PAPER NUMBER
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2813

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/706,912

Applicant(s)

HIGASHI, MITSUTOSHI

Examiner

Laura M. Schillinger

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/14/03, 6/15/05, 10/18/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 1-9 in the reply filed on 11/02/05 is acknowledged.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 5 recites the limitation " in which said substrate, said lid, and an intermediate member" in lines one and two. There is insufficient antecedent basis for this limitation in the claim

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 also recites "arranged in accordance with need" this limitation is indefinite.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Peterson et al ('473).

Peterson teaches the following claimed limitations as cited below:

1. (ORIGINAL) An electronic device having mounted thereon a microelectromechanical system element comprising

a micromachine component (100- see Applicant's own Background) and electronic component (24) for operation of said micromachine component (44) formed on a substrate (16), in which an operating space for said micromachine component is defined by said substrate (16) and a lid bonded covering an active surface of said substrate (32), (See Fig.3A)and

said electronic component and wiring patterns of said lid (Fig. 5 (82)) are electrically connected at a bonded pad of said substrate (48) and said lid (50) (Fig.3A).

2. (ORIGINAL) An electronic device as set forth in claim 1, in which said bonded pad is an ultrasonic bonded pad of said substrate and said lid (Col.2, lines: 60-65- Applicant teaches same disadvantage in Applicant's specification).

3. (PREVIOUSLY PRESENTED) An electronic device as set forth in claim 1, in which said substrate and/or said lid further have a cavity at said operating space side (Fig.3A (36)).

4. (PREVIOUSLY PRESENTED) An electronic device as set forth in claim 1, in which said substrate and a lid having no wiring pattern further comprise, between them, an intermediate member provided with an opening for operation of said micromachine component and wiring

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patterns and said electronic component and the wiring patterns of said intermediate member are electrically connected (Fig.6C and D).

5. (ORIGINAL) An electronic device as set forth in claim 2, in which said substrate, said lid, and an intermediate member arranged between said substrate and said lid further comprise a second continuous ultrasonic bonded pad formed in contact with an outer periphery of said operating space side of said substrate and other members without interruption (Fig.6C and 6D (60)).

6. (PREVIOUSLY PRESENTED) An electronic device as set forth in claim 1, in which said substrate and/or said lid further comprise conductor-filled vias formed passing through them in a thickness direction (Fig.5 (90)).

7. (ORIGINAL) An electronic device as set forth in claim 4, in which said intermediate member further comprises conductor-filled vias formed passing through it in a thickness direction (Fig.6C and 6D).

8. (PREVIOUSLY PRESENTED) An electronic device as set forth in claim 1, which further comprises a bonded sealing resin surrounding an outside surface of said bonded pad (Fig.4A (48)).

9. (PREVIOUSLY PRESENTED) An electronic device as set forth in claim 1, in which a plurality of said electronic devices are those produced batch-wise at the same time by a wafer

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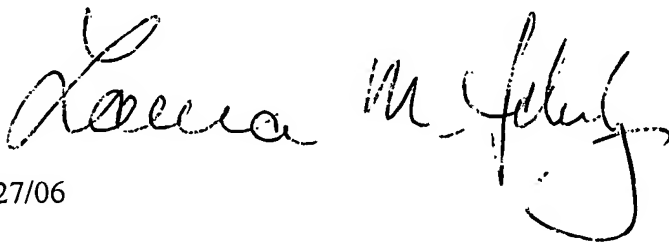
level package process (inherent-it is conventional in the semiconductor arts to produce packaged IC by batch).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M. Schillinger whose telephone number is (571) 272-1697. The examiner can normally be reached on M-T, R-F 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl W. Whitehead, Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Laura M Schillinger
Primary Examiner
Art Unit 2813

02/27/06